

# San Francisco Bay

## Environmental Sensitivity Index Files



### Introduction

**T**he most widely used approach to sensitive environment mapping in the United States is NOAA's Environmental Sensitivity Index (ESI). This approach systematically compiles information in standard formats for coastal shoreline sensitivity, biological resources, and human-use resources. ESI maps are useful for identifying sensitive resources before a spill occurs so that protection priorities can be established and cleanup strategies designed in advance. Using ESIs in spill response and planning reduces the environmental consequences of the spill and cleanup efforts.



NOAA is undertaking a wide-ranging program to promote open ESI standards and to develop digital ESI databases for high-priority coastal areas in partnerships with states and other

Federal agencies. NOAA is developing guidelines for ESI data users that help data exchange, provide a mechanism for evaluating data quality, and allow development of computer applications for displaying and reproducing ESI maps. ESI guidelines, data, and maps help users in both government and the private sector develop applications for coastal management activities that go beyond traditional spill response.

Your ESI CD-ROM contains the following files and directories:

### READ1.pdf

An electronic version of this hard-copy document in Portable Document Format (pdf). Download Adobe Acrobat™ 4.0 Reader

software at [www.Adobe.com/products/acrobat/readermain.html](http://www.Adobe.com/products/acrobat/readermain.html).

### AVPROJ

This directory contains an ArcView® project and the supporting shape and dbf files. The subdirectory AVPROJ contains the project file, SANFRAN.APR, with documentation and software for installation.

The project itself is a single view containing a theme for each ESI data layer. Themes have been symbolized using the standard ESI colors and patterns. It includes links from the biology and socioeconomic themes to a flat file version of the ESI tables. An ESI menu enables links to searchable breeding and source tables for more complex queries. These links can also be turned off to maximize the performance of simpler queries.

### DBFILES

This directory is broken down into two subdirectories, DESKTOP and RELFILES. The DESKTOP directory contains a simplified flat file format that permits data queries without establishing the complex links needed for the relational files. Supporting data tables allow more complex queries of the breeding and source items. These are the tables that are used in the ArcView project.

The RELFILES directory contains the relational data tables that were used during the ESI data collection. These are a set of normalized, relational tables that will maintain the integrity of the data during updates. Though they are considerably more complex, these tables should be used by those who will be responsible for maintaining and updating the ESI data set.

Both sets of database files are provided in two formats. The first is uncompressed Arc Export files that can be directly imported into

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INFO tables. The second is a comma-delimited text format for use in any other database system.

For further information, including item definitions, see the San Francisco metadata document.

## DOCUMENT

This directory contains three pdf documents. METADATA should be referenced for entity and attribute information as well as data lineage. There are also diagrams illustrating the structure of the ESI data tables.

The more general GUIDELINES describes what is contained in an ESI, how data are collected, and general GIS/database considerations.

The document DESKTOP gives a detailed explanation of the contents of the CD, and also explains the simplified flat file data structure.

## ESI\_VIEW

This directory contains Macintosh and Windows installers for an ESI data viewer. The viewer is comprised of MARPLOT™, a mapping application produced by NOAA, and the associated data tables in a stand-alone version of Filemaker Pro®. The first section of the TOUR document describes the installation procedure.

TOUR will also help you to understand the ESI information and shows you how to formulate simple, yet useful queries. MARPLOT documentation is provided for more general questions.

## MOSS

This directory contains the ESI geographic data in MOSS file format. This format may be used directly by MOSS GIS or its simple text format makes it easy to write translators to other GIS software. Users of these files should use the lookup tables provided in this directory (BIO\_LUT.TXT and SOC\_LUT.TXT) in place of the lookup tables in the DBFILES directory.

## SF\_PDFS

This directory contains an electronic version of the San Francisco ESI atlas in pdf format. The document GUIDE.PDF describes how to use the navigable pdf software, for example, to link from the index to the appropriate atlas page then to the back of the map. The pdfs may be used on-line or are excellent for printing out individual atlas pages.

## SOURCE

This directory contains the ESI geographic data in uncompressed, double-precision, Arc export file format. These data (as all geographic data on this CD) are provided in geographic coordinates, NAD 27.

## SYMBOLS

This directory contains the ESI symbology and lookup tables for use with ARCEDIT™ and ARCPLOT software. The .e00 files are exported versions of the font, lineset, markerset, and shadeset. A readme.txt file tells where these files should be installed. The associated lookup tables are in the LUT directory. These are INFO tables stored in uncompressed Arc export format.

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